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In this issue:

Hypericum lobocarpum (Clusiaceae) Rediscovered in Ripley County, Missouri
Tim E. Smith 1

Lysimachia terrestris (Primulaceae) New to Missouri
Tim. E. Smith 4

Generic Index to Asteraceae in *Steyermark's Flora of Missouri,* Volume 2
Tim E. Smith 9

Two New Localities for *Persicaria glabra* (Polygonaceae) in Missouri and Comments on its Identification and Habitat Requirements
Paul M. McKenzie, Tim E. Smith, and Nels Helmburg 11

Botanical Highlights – 2006
Tim E. Smith 17

Steyermark's Flora of Missouri, Volume 2. Errata
George Yatskievych 23

Taxonomic and Nomenclatural Differences Between Steyermark's *Flora of Missouri* and the Revised *Flora of Missouri,* Volume 2
Rex Hill and George Yatskievych 26

Book Review:
The Flora of Nebraska 47

Journal of the Missouri Native Plant Society

HYPERICUM LOBOCARPUM (CLUSIACEAE) REDISCOVERED IN RIPLEY COUNTY, MISSOURI

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Hypericum lobocarpum Gatt. is the rarest of the three shrubby St. John's worts that occur in Missouri. It most closely resembles *H. prolificum* L. (formerly *H. spathulatum* (Spach) Steud.) in that both species have bright yellow flowers with five sepals and five petals. *H. lobocarpum* is typically a shorter shrub with shorter fruits that are lobed longitudinally. These characters and others used for distinguishing the taxa may be found in the second volume of *Steyermark's Flora of Missouri* (Yatskievych, 2006).

Prior to the present report, *H. lobocarpum* was known from Missouri only by historical collections from Ripley and Howell counties. The species was ranked as State Historical (SH) in the Missouri Natural Heritage Database (Database) due to the lack of modern records. The Ripley County collection was made in 1899 by B. F. Bush; the Howell County record was a Steyermark collection from 1941. Bill Summers searched unsuccessfully for the plant at the Howell County station (along Hwy. 160, 6 mi SW of West Plains) in 1990. An additional historical collection was cited in Steyermark (1963) from Dunklin County (20 Apr 1912, *Bush 6619*) but Yatskievych was unable to locate the specimen during research for the Flora of Missouri Project (Yatskievych, 2006).

In the spring of 2006, I was adding the 1899 Ripley County record to the Database, where locations of species of conservation concern are tracked. Part of that process is to place a point, line, or polygon on a map to indicate the plant's location. The only location information on the specimen label was "Ripley County, Pleasant Grove, common in woods." It is typical of specimens from the 19th century to lack more precise locality data such as township, range, section, or latitude/longitude. "Pleasant Grove" was a good lead but that community does not occur on modern Ripley County maps or on the appropriate topographic 7.5'

quadrangle map (Doniphan North). The community name was listed for Ripley County in the U.S. Geological Survey's Geographic Names Information System (1981), including the latitude and longitude, which narrowed the search area considerably.

I next checked a photographic slide representing the 1950 Ripley County map used by Julian Steyermark during his field work in preparation for writing his flora. It revealed no printed community name, but "Pleasant Grove" was handwritten in the map margin and a pencil line led to a dot marked on the map. Apparently Steyermark had wondered about that locality too, no doubt due to it being referenced on specimen labels. This information allowed accurate mapping in the Database of the 1899 collection by Bush and provided an intersection of two roads where the shrub might be sought.

Armed with the location data from the 1899 collection, I drove to the area on 26 June 2006 to see if I could relocate this shrub, which had been "common in woods" 107 years earlier. Although there were several tracts of public land nearby, the land along the gravel road leading to the former Pleasant Grove was private and had scattered residences, some occupied and some in ruin. One of the roads that formed the intersection that Steyermark had labeled as Pleasant Grove was now gated and was barely visible due to lack of use and the growth of vegetation.

Fig. 1. *Hypericum lobocarpum* in its habitat along the roadisde.

Near the old intersection a golden-yellow flower on the roadside caught my eye. Upon stopping I found that it was the herbaceous *Hypericum punctatum* Lam. but nearby along the right-of-way were several shrubby *Hypericum* plants. One of these turned out to be *H. prolificum* but another was *H. lobocarpum* (Fig. 1). Eventually, I found two other locations of *H. lobocarpum*, also on roadside rights-of-way along a one mile length of county gravel road that included the old Pleasant Grove intersection. I was not able to survey the nearby forested areas due to lack of landowner permission. The public lands in the area were mostly at higher elevations, whereas the road where my collections were made was located in or just above the floodplain of the South Prong Little Black River. A brief survey along streams in nearby Little Black Conservation Area did not yield any additional sites for the shrub.

The observed *Hypericum lobocarpum* plants were all in full to partial sunlight along the mostly open, gravelly roadside. I documented the occurrence with three collections of flowering specimens: *Tim E. Smith 4287, 4289, 4291* (MO, Tim Smith private herbarium). Associated species included *Mimosa quadrivalvis, Stylosanthes biflora, Ambrosia bidentata, Ambrosia artemisiifolia, Aster patens,* and *Pedicularis canadensis*.

It was gratifying to find this rare Missouri shrub still persisting where B. F. Bush had found it over a century earlier. There is a feeling of continuity to walk in the footsteps of Missouri's early botanists and see the same sites that they saw so many years ago. Certainly the area's landscape had changed over the years but, in this case, human activity may have actually diminished. There is certainly no aggregation of homes or businesses there today that would merit a community name.

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LYSIMACHIA TERRESTRIS (PRIMULACEAE) NEW TO MISSOURI

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Swamp candle or bulbil lysimachia, *Lysimachia terrestris* (L.) Britton, Sterns & Poggenb., is a plant of swamps, bogs, and wet meadows in the eastern and northwestern U.S. and Canada. According to the U.S. Dept. of Agriculture's online Plants Database (2006-07-05), the species is known from the following states that border Missouri: Iowa, Illinois, Kentucky, Tennessee and Oklahoma. Julian Steyermark (1963) included the species on a list of plants occurring in Illinois that might eventually be found in northeastern Missouri.

On 8 June 2006, the authors discovered swamp candle growing in a groundwater seepage area below a sand ridge in northwestern Adair County, Missouri (Fig. 1). We observed three flowering stems and at least twelve sterile stems. It was apparent to us that the plant was a *Lysimachia*, but the species was new to both of us. A flowering specimen (*Tim E. Smith 4266*) was collected to facilitate later identification and to voucher the occurrence. Several photographs were also taken of the flowering stems. We were able to identify it later with access to several reference books and an Internet search engine. George Yatskievych of the Missouri Botanical Garden later verified the specimen, which is deposited at the Missouri Botanical Garden Herbarium (MO).

Fig. 1. *Lysimachia terrestris* in its natural habitat in Missouri.

Lysimachia terrestris is an erect, rhizomatous perennial with opposite, glandular-punctate leaves. Inflorescences are racemes of yellow flowers and are terminal and occasionally also from the upper leaf axils. The five or six yellow petals are marked with faint red dots and lines, which are also evident on the ovary. The plant is reported to reproduce vegetatively by bulblets (1–2 cm long) that form in the leaf axils late in the season before dropping to the ground (Radford et al., 1968). At the 8 June time of discovery, the plants appeared to be in early flower, as no developing fruits were evident and inflorescences were shorter and more congested than in many of the available photos and line drawings of the taxon. From a distance, the terminal, yellow inflorescences are suggestive of a goldenrod (*Solidago*) with a narrow-cylindrical inflorescence.

The *L. terrestris* site is on private land in bottomland east of the Chariton River, near the Schuyler County line. The mostly open seep is situated between a soybean field on the sand ridge and a closed-canopy bottomland forest. Associated species at the site include *Amorpha fruticosa*, *Onoclea sensibilis*, *Boehmeria cylindrica*, *Polygonum* spp., *Impatiens capensis, Thelypteris palustris* var. *pubescens*, and *Phalaris arundinacea*. Also found in other parts of the seep were *Spiraea alba* and *Lathyrus palustris* var. *palustris*. Both the *Thelypteris* and the *Lathyrus* are considerably disjunct from other known Missouri sites, neither having been documented previously from northeastern Missouri. The *Spiraea alba* occurrence is only the fourth known extant site for Missouri, but it is only about three airmiles from another Adair County population. Botanists and plant surveyors should be aware of the possibility for additional locations for *L. terrestris* in groundwater seepage communities of northern Missouri, perhaps occurring with some of the same associated species.

Steyermark (1963) included seven native and naturalized species of *Lysimachia* for Missouri, but an additional Eurasian species, *L. vulgaris* L., was collected from a disturbed,small, mesic upland prairie remnant in Shelby County on 21 Sep 1994 by Bill Summers (voucher: *Summers 7134* [MO]. The following key is adapted from Steyermark's work to include both *L. terrestris* and *L. vulgaris*.

1. Leaves nearly circular, heart-shaped at base, 1.5–3.0 cm. long; stems creeping and trailing. . . . . *L. nummularia*
1. Leaves of other shapes, mostly 3–15 cm. long; stems upright, spreading or reclining, or if creeping and rooting at the nodes then the leaves ovate or lanceolate and 3–9 cm. long
    2. Leaves from middle and upper part of stem narrowly linear, 2–7 mm broad, with only 1 main nerve, the side nerves very faint or absent. . . . . *L. quadrifolia*
    2. Leaves from the middle part of stem lanceolate, elliptic, or ovate, usually 9–55 mm broad, with side nerves plainly visible
        3. Leaves glandular-punctate, not ciliate at base; flowers in crowded racemes or panicles
            4. Leaves and stems soft-pubescent, leaves opposite or whorled, flowers in a terminal, leafy panicle; plants to 1 m or more tall. . . . . *L. vulgaris*
            4. Leaves and stems glabrous or nearly so; leaves opposite; flowers in racemes, plants usually less than 1 m tall
                5. Flowers in club-shaped, dense racemes on long, axillary peduncles from mid-stem. *L. thrysiflora*
                5. Flowers in elongate terminal and sometimes also axillary racemes from uppermost leaf axils. . . . . *L. terrestris*
        3. Leaves not glandular-punctate, more or less ciliate at base; flowers not crowded in dense inflorescences
            6. Divisions of corolla 3–5 mm long; divisions of calyx 3–5 mm long; stems reclining, rooting at the nodes and eventually creeping. . . . . *L. radicans*
            6. Divisions of corolla 7–13 mm long; divisions of calyx 3.5–10.0 mm long; stems mainly erect or ascending, sometimes reclining but not rooting at the nodes
                7. Main leaf-blades from the middle part of the stem 2–6 cm broad, ovate, rounded or somewhat heart-shaped at base, abruptly contracted at base into a distinct petiole, which is fringed with hairs throughout its length. . . . . *L. ciliata*

7. Main leaf-blades from middle part of stem 0.5–2.0 (–3.0) cm broad, narrowly oblong to linear-lanceolate, gradually narrowed and tapering to the base, not contracted into a distinct petiole; fringe of hairs, when present, only at the base of the petiole
    7. Divisions of calyx thin. with 3 nerves (use a handlens); plant lacking stolons at base; stems usually more than 4 mm in diameter; lower leaves not persisting; middle and upper leaves green on lower surface, gradually tapering into a somewhat winged petiole, slightly fringed at base; smallest leaf-blades in upper third of plant. . . . . *L. hybrida*
    7. Divisions of calyx thicker, with nerves either not showing or faint (use a handlens); plant with slender, elongate stolons at base; stems usually less than 4 mm in diameter; lower leaves persistent; middle and upper leaves pale or grayish green on lower surface, gradually tapering to the sessile or nearly sessile base, conspicuously fringed at the base; smallest leaf-blades at the base of the stem. . . . . *L. lanceolata*

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GENERIC INDEX TO ASTERACEAE IN *STEYERMARK'S FLORA OF MISSOURI*, VOLUME 2

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The Asteraceae are by far the largest family of vascular plants in the Missouri flora. Dealing with species identification in such a large group is a daunting task. When the family treatment was being written by George Yatskievych and other authors for Volume 2 of the revised *Steyermark's Flora of Missouri* (2006, Missouri Botanical Garden Press, St. Louis), the decision was made to organize the genera by tribes, rather than in a strictly alphabetical sequence. This facilitates the identification process and places closely related genera into closer proximity in the book. However, some users find it difficult to locate individual generic treatments without resorting to the general index in the back of the volume.

To aid users with locating genera in the Asteraceae treatment, the following compact, alphabetical index to genera of Asteraceae was compiled. Users may wish to photocopy this and place it at the beginning of the Asteraceae treatment in their copies of the "new Steyermark."

Cross-section of a head of *Helianthus annuus*.

Genus	Page
Achillea	173
Acmella	441
Ageratina	394
Ageratum	396
Ambrosia	442
Amphiachyris	202
Anaphalis	426
Antennaria	426
Anthemis	176
Aphanostephus	202
Arctium	317
Arnoglossum	577
Artemisia	177
Aster	204
Astranthium	205
Berlandiera	449
Bidens	449
Boltonia	206
Bradburia	210
Brickellia	396
Carduus	318
Centaurea	321
Chaetopappa	211
Cichorium	347
Cirsium	332
Conoclinium	400
Conyza	212
Coreopsis	461
Cosmos	468
Cota	188
Crepis	348
Cyclachaena	471
Diaperia	429
Doellingeria	216
Dyssodia	472
Echinacea	473
Eclipta	479
Elephantopus	591
Engelmannia	480
Erechtites	580
Erigeron	218
Eupatorium	400
Eurybia	225
Euthamia	228
Flaveria	482
Fleischmannia	412
Gaillardia	483
Galinsoga	485
Gamochaeta	430
Grindelia	232
Guizotia	488
Gutierrezia	237
Hasteola	582
Helenium	489
Helianthus	493
Heliopsis	516
Helminthotheca	352
Heterotheca	238
Hieracium	353
Hymenopappus	518
Hypochaeris	357
Inula	572
Ionactis	243
Iva	519
Krigia	358
Lactuca	363
Lapsana	371
Leontodon	371
Leucanthemum	189
Liatris	413
Lygodesmia	372
Marshallia	522
Matricaria	190
Melampodium	523
Mikania	424
Nothocalais	374
Onopordum	341
Packera	582
Palafoxia	524
Parthenium	525
Picris	375
Pluchea	573
Polymnia	529
Prenanthes	377
Pseudognaphalium	433
Pyrrhopappus	382
Ratibida	531
Rudbeckia	534
Senecio	589
Silphium	547
Silybum	342
Smallanthus	555
Solidago	244
Sonchus	383
Symphyotrichum	278
Tagetes	556
Tanacetum	194
Taraxacum	387
Thelesperma	558
Tragopogon	390
Tripleurospermum	196
Verbesina	560
Vernonia	592
Xanthium	568

TWO NEW LOCALITIES FOR *PERSICARIA GLABRA* (POLYGONACEAE) IN MISSOURI AND COMMENTS ON ITS IDENTIFICATION AND HABITAT REQUIREMENTS

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Persicaria glabra (Willd.) M. Gómez (smooth smartweed) is a native, nearly cosmopolitan, perennial species that occurs in the United States primarily along the coastal plain from southern New Jersey to southern Florida, west to Texas, and northward in the interior to Arkansas, Kentucky, Missouri and Tennessee (Steyermark, 1963; Godfrey and Wooten, 1981; Hinds and Freeman, 2005; Arkansas Vascular Flora Committee, 2006). Older references to the species have often used the name *Polygonum densiflorum* Meisn, which has now been placed in synonymy with *Persicaria glabra* (Hinds and Freeman, 2005).This species is primarily an emergent aquatic species that inhabits wet woods, swamps, wet thickets, marshy shores, lakes, and rivers, and low, moist areas (Steyermark, 1963; Godfrey and Wooten, 1981; Diggs et al., 1999; Hinds and Freeman, 2005; Thomas, 2005).

In Missouri, the species was previously known only from historical collections made in Barton, Dade, and Dunklin counties (Steyermark, 1963; Thomas, 2005) and was previously given a State Rank of SH (State Historical) by the Missouri Natural

Heritage Program (2006). The last time smooth smartweed was documented in the state was a September 1952 specimen collected along the Sac River in Dade County (*E. J. Palmer 54703* [MO]). Other historical collections of *P. glabra* listed by Steyermark (1963) were redetermined as other species (George Yatskievych, Missouri Botanical Garden, pers. comm).

On 23 September 2006, McKenzie and Smith discovered a small population of *P. glabra* along the edge of Rockhouse Marsh in the Mingo National Wildlife Refuge, in Stoddard County, on the occasion of a Missouri Native Plant Society's field trip. Some plants were nearly 2 m tall in standing water and had a dense mat of fibrous roots at the lower nodes. Inflorescences were interrupted, slightly drooping (somewhat reminiscent of *Persicaria lapathifolia* (L.) S.F. Gray), and had small white flowers. Vouchers were later confirmed by George Yatskievych as *P. glabra*. Species associated with *P. glabra* in Rockhouse Marsh include *Bidens* sp., *Cyperus erythrorhizos, C. odoratus, Echinochloa* sp., *Eragrostis hypnoides, Hibiscus lasiocarpos, Rotala ramosior*, and *Sesbania exaltata*.

Fig. 1. Nearly monotypic stand of *Persicaria glabra*, Marias Temps Clair Conservation Area. 30 Sep 2006 (photo by George R. Van Brunt).

Fig. 2. Interrupted, somewhat nodding inflorescences of *Persicaria glabra*, Marais Temps Clair Conservation Area, 30 Sep 2006 (photo by George R. Van Brunt).

Subsequent to this find, on 30 September 2006 the St. Louis chapter of the Missouri Native Plant Society joined the continuing education Wetland Plant Identification class from Meramec Community College to visit the Marais Temps Clair Conservation Area in northeastern St. Charles County. During the field trip, a large population of an unidentified *Persicaria* (Fig. 1) was discovered and collected by Holmberg in standing water of a pond. The plants were robust, with sprawling stems up to 1.25 m long that rooted at the lower nodes. As with plants observed at Mingo National Wildlife Refuge, the inflorescences were long, somewhat interrupted, and had white flowers (Fig. 2). The ocreae were truncate at the summit, the veins did not project beyond the summit as cilia greater than 1 mm long, and the ocreae were covered with conspicuous punctations (appearing as small black dots) (Fig. 3) (Thomas, 2005). The only associated species at the Marais Temps Clair site was *Persicaria hydropiperoides*.

Holmberg tentatively identified the unknown plant as *P. glabra* using keys to the genus in Steyermark (1963) and Thomas (2005). Voucher specimens taken by Holmberg subsequently were confirmed by George Yatskiveych as *P. glabra*.

Fig. 3. Ocreae of *Persicaria glabra*, showing punctations, truncate summits, and the lack of cilia. Marias Temps Clair Conservation Area, 30 Sep 2006 (photo by George R. Van Brunt).

Due to its perennial habits and association with standing water, *P. glabra* possibly can be overlooked as *P. amphibia*. *Persicaria glabra* can be readily distinguished from *P. amphibia* by its usually longer, narrower leaf blades, punctate ocreae, often interrupted and slightly drooping inflorescence with white flowers, and conspicuous fibrous roots at the lower nodes (Godfrey and Wooten, 1981; Thomas, 2005). The black punctations on the flowers and ocreae (Fig. 3) of *P. glabra* may suggest *P. punctata* or *P. hydropiper* to some botanists, but the species easily can be distinguished from those two taxa by the lack of conspicuous cilia greater than 1 mm long extending beyond the summits of the ocreae and fibrous rooting of the lower nodes (Thomas, 2005). Because of its long narrow leaves, white flowers, somewhat drooping inflorescence, and eciliate ocreae, *P. glabra* could also be confused with *P. lapathifolia*, but that species lacks punctations on the ocreae and usually has a denser inflorescence.

It is likely that *P. glabra* has been overlooked and that additional searches in swamps, lakes, larger rivers, and managed impoundments will yield additional populations in Missouri. Both the Marais Temps Clair Conservation Area and Mingo National

Wildlife Refuge are managed, in part, for migrating waterfowl. Because species of *Persicaria* are preferred waterfowl food items and there are documented records of the seeds of various plants being transported by waterfowl (deVlaming and Powers, 1968; Powers et al., 1978), managed impoundments should be searched for *P. glabra*, especially during September and October when the species is in flower and fruit.

Botanical nomenclature listed herein follows Yastkievych (1999) or Yatskievych and Turner (1990).

VOUCHER SPECIMENS.—**St. Charles County**: Marais Temps Clair Conservation Area; ca. 10 mi NE of St. Charles; 700 m N of parking lot on Island Road; plants concentrated in a 15×15 m wedge on the W edge of a permanent linear waterway and at the NE edge of seasonally flooded Pool 2; T48N, R5E, S23, NE¼ of SE¼; 38°54'12"N, 90°25'13"W; growing in a nearly monotypic stand at water's edge and extending into adjacent shrubby woods; 30 Sep 2006; *N. Holmberg & G Van Brunt 1745* (MO). **Stoddard County**: Mingo National Wild-life Refuge: Rockhouse Marsh, ca. 1 mi NNW of Puxico; S of ditch 11, N of auto-tour road; T27N, R8E, S23, SW¼ of SW¼; 5 or 6 small scattered populations at edge of freshwater marsh in standing water; 23 Sep 2006, *P. M. McKenzie 2248* (MO, UMO); *T. E. Smith 4318* (MO).

ACKNOWLEDGMENTS.—We are grateful to George Yatskievych of the Flora of Misasouri Project and personnel of the Mingo National Wildlife Refuge for their assistance with this report. We thank Craig Freeman, University of Kansas, for providing information on *Persicaria*. Photos (Figs. 1–3) were taken by George R. Van Brunt and reproduced with his permission.

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BOTANICAL HIGHLIGHTS – 2006

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A number of new discoveries and important rediscoveries of Missouri plant species occurred in the year 2006. The brief synopsis below describes what I consider the highlights. This report is not intended to replace the publication of more detailed reports in this or other appropriate journals. Three newly described species that were reported elsewhere are included in the listing in hopes of raising awareness among students of Missouri's flora. References are included for those reports that have already been published. I hope that this summary will be of interest to amateur and professional investigators and will inspire continued botanical exploration in Missouri. I apologize for any omission of other important discoveries from 2006.

NEW STATE RECORDS

Astomum phascoides (Hook. ex Drumm.) Grout (a pygmy moss).—Nels Holmberg discovered this moss in March of 2006 on an E-facing dolomite glade in Meramec State Park. The species has a scattered distribution over a large area of North America but had not been previously documented from Missouri.

Berberis bealei Fortune.—This cultivated ornamental is native to China. It was located as an escape from cultivation in 2006 by Scott George near Silva (Wayne County). This species was formerly placed in the genus *Mahonia* Nutt. and is commonly known as Oregon grape.

Carex reznicekii Werier.—Newly described by David Werier (2006) from the southeastern and eastern U.S. with two Shannon County, Missouri collections referenced (Dennis Hollow and Rocky Creek Falls). The most recent collection (Dennis Hollow) was made on 13 May 1997 by Alan Brant. This new taxon most

closely resembles *C. umbellata* Schk. ex Willd. and *C. nigro-marginata* Schwein. It was named for Tony Reznicek, well-known *Carex* expert at the University of Michigan.

Claytonia ozarkensis J.M. Miller & K.L. Chambers.—Newly described by Miller and Chambers (2006), this species of spring beauty is said to occur in the Ozarks of Missouri (Jefferson, Ozark, and Stone Counties), Arkansas, and Oklahoma. It is reported from "moist sandstone bluffs and wooded hilltops, at moist microsites near springs or seeps on limestone." It can co-occur with *C. virginica* L. but will have broader leaves with distinctive blades and petioles, as well as multiple small bracts in the inflorescence.

Elymus churchii J.J.N. Campb.—Newly described by Campbell (2006), this grass is known only from the Ouachita and Ozark mountains of Arkansas, Missouri and Oklahoma. The species may have resulted from introgression between *E. canadensis* L. and *E. hystrix* L. The only known Missouri specimen is a June 24,1954 collection by E.J. Palmer from 3 mi W of Nixa on rocky, wooded banks. Plants that would have been keyed to *E. diversiglumis* Scribn. & C. Ball in Steyermark (1963) are this species, as *E. diversiglumis* is actually restricted to the northern Great Plains, reaching only as far south as Iowa.

Hydrocotyle ranunculoides L.f.—Found at Mingo National Wildlife Refuge in Stoddard and Wayne counties by George Yatskievych and members of the Missouri Native Plant Society. One previously known Missouri collection site from the year 2000 (Stan Hudson collection from Otter Slough Conservation Area) had been thought to be an introduction. It was found to be widespread at Mingo and is now considered native. This pennywort is easily distinguished from the peltate-leaved *H. verticillata* Thunb. because its petioles are attached along the margin of the leaf blade.

Lysimachia terrestris (L.) Britton, Sterns & Poggenb. (swamp candle or bulbil lysimachia).—Discovered by Tim Smith and Greg Gremaud at a privately-owned seep below a sand ridge in Adair County (Smith & Gremaud, 2006). Although widely distributed in the eastern and northwestern U.S. and Canada, it had not

previously been reported from Missouri. Steyermark (1963), did prophetically include it in a list of species occurring in Illinois that might eventually be found in northeast Missouri.

Oxymitra incrassata (Brot.) Sergio & Sim-Sim.—This distinctive, thallose liverwort was collected by Tim Smith from a sandstone glade near Truman Lake (Henry County) while searching unsuccessfully for *Geocarpon minimum* Mack. (Smith 2006a). The branching, green, grooved thallus has pale marginal scales that curl over the top of the thallus when dry, presenting a caged appearance. The nearest previously-known location is in south-central Kansas (Woodson County).

Sphagnum fallax H. Klinggr.—This moss was collected twice in 2006 by Nels Holmberg at LaBarque Creek Conservation Area in Jefferson County (Darigo and Holmberg, in press). It was growing in a seepy area on a forested, NW-facing slope below a sandstone rock face. Known from the eastern U.S., the westernmost previously known occurrence is in Illinois.

REDISCOVERIES

Bidens laevis (L.) Britton, Sterns & Poggenb.(showy bur marigold).—Known previously from a historical Dunklin County collection (by William Trelease in 1897), Alan Brant found this species flowering in a forested fen in Ripley County in Sep 2006. It most closely resembles *Bidens cernua* L. but has longer ray flowers (when present) and receptacular bracts with reddish brown tips.

Gentiana andrewsii Griseb. var. *andrewsii* (closed or bottle gentian).—This gentian was located at two sites by Alan Brant in October and early Nov, 2006, both in Washington County. The most recent previous record was a collection made by Julian Steyermark in 1950 from Ste. Genevieve County. The var. *andrewsii* is separated from the more common var. *dakotica* by the shape of the lobes at the apex of the corolla. When collecting flowering bottle gentians, the corolla should be sliced longi-

tudinally and pressed flat to reveal the diagnostic lobing between the corolla folds.

Glycyrrhiza lepidota (Nutt.) Pursh var. *lepidota* (wild licorice).—Until 2006, this species had been last documented from collections by Steyermark in Marion and Gentry counties in 1934. It was observed in September of 2005 in Harrison County by Dr. Tom Rosburg of Iowa's Drake University. Based on Rosburg's report, Tom Nagel was able to relocate the site and collect voucher specimens and photos of the plants in Aug 2006.

Hypericum lobocarpum Gatt.—This shrubby St. John's wort was relocated by Tim Smith in June 2006 at the Ripley County site of the 1899 collection by B.F. Bush (Smith 2006b). The more recent previous report was a 1941 Steyermark collection from Howell County. That location was unsuccessfully searched by Bill Summers in 1990. *H. lobocarpum* most closely resembles the common *H. spathulatum* (Spach) Steud. but it is a shorter shrub with shorter fruits that are longitudinally lobed.

Persicaria glabra (Willdenow) M. Gómez (smooth smartweed).—This mostly Coastal Plain species has had a recent name change and is in most references under the name of *Polygonum densiflorum* Meisn. It was last known from a 1951 Barton County collection until it was rediscovered at two sites during 2006: Mingo National Wildlife Refuge (Stoddard County) and Marais Temps Clair Conservation Area (St. Charles County) (McKenzie et al. 2006). Both discoveries were made on field trips connected with Missouri Native Plant Society events. It occurs in shallow, standing water. It might be confused in the field with *P. amphibia* (L.) Gray or *P. lapathifolia* (L.) S.F. Gray.

Symphoricarpos occidentalis Hook. (wolfberry).—This shrub was known to occur in Missouri's loess hill prairies but was last observed in that habitat (one plant, at Brickyard Hill Conservation Area in Atchison County) in 1985. A 1992 attempt to relocate the plant there was unsuccessful. The only other known extant native population of wolfberry occurs along an abandoned railroad right-of-way in Nodaway County. In 2006, Tom Nagel located several

hundred plants at Star School Hill Prairie in Atchison County, confirming that this shrub persists in its primary habitat type.

FEDERALLY-LISTED PLANT SPECIES

Geocarpon minimum Mack.—This federally-threatened species was moved, in the form of seed, from a known site on private land in Greene County to sandstone outcrops on Bois D'Arc Conservation Area in 2005 by Mike Skinner and Kevin Eulinger. In March 2006, 72 plants were documented at the planting location. The species persists at the donor site as well and a relocation of plants to different areas of that glade also proved successful. Previous relocations of geocarpon have occurred at Bluff Springs Conservation Area (Cedar County) and on highway right-of-way in St. Clair County (Smith & Gardner, 1999).

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STEYERMARK'S FLORA OF MISSOURI, VOLUME 2. ERRATA

Compiled by George Yatskievych
Flora of Missouri Project

When examined under sufficient magnification, few things in life are perfect. This is especially true of mammoth, long-term undertakings such as the preparation of a floristic manual. It has become customary to compile lists of additions, corrections, and deletions for such volumes. Such was the case with Volume 1 of the *Steyermark's Flora of Missouri* series (Yatskievych, 2000. Missouriensis 21: 39–44). As with Volume 1, there was a strong push to finalize Volume 2, both to accommodate eager users of the work and to meet deadlines for a publication subsidy imposed by the Missouri Department of Conservation. This resulted in a small number of errors that survived through the publication process (for which the author takes sole responsibility). Additionally, new data from other studies have caused a small proportion of the information in Volume 2 to become outdated rather quickly. The number of such problems appears to be many fewer than those that crept into Volume 1, which reflects the thoroughness of the editorial team responsible for Volume 2.

In the intervening months since the publication of Volume 2, users of the book have continued to report various errors, which are compiled here. The several observant readers who took the time to send in reports of problems with Volume 2 deserve a round of thanks for their efforts, which will make the book more useful to all of its users.

The author is under no illusion that the following list is complete, but hopefully it represents the majority of the problems. Readers should note that no attempt has been made to update the county distributional maps in the volume, even though a number of additional county records have been collected during the past several months. The errata listed below are mainly minor typographical mistakes, but occasional more substantive errors also are identified.

Page Number	Correction(s)
33	Pl. 198 is missing a label for part *c*, which is the spinescent node in the lefthand median position.
204	Pl. 204 is missing a label for part *h*, which is the inflorescence in the center of the plate..
359	For *Krigia biflora*, the plate citation should read *Pl. 257 h, I* instead of *Pl. 257 j, k*.
360	For *Krigia dandelion*, the plate citation should read *Pl. 257 j, k* instead of *Pl. 257 h, I*.
361	Pl. 257. In the legend, the parts referring to *Krigia dandelion* should read *j* and *k*, not *h* and *I*. The parts that refer to *K. biflora* should read *h* and *I*, not *j* and *k*.
367	Pl. 253. The habit drawing of *Cirsium discolor* is unlabeled and should be labeled *e*. The legend is correct.
372	The name *Leontodon taraxacoides* has been found to be a later homonym of *L. taraxacoides* Hoppe & Hornsch., a different species that is not introduced in North America. Apparently, the correct name for the Missouri species is *L. saxatilis* Lam, ssp. *saxatilis* (Bogler, 2006. Flora of North America 19: 296).
441	*Acmella oppositifolia* var. *repens* should be called *A. repens* (Walter) Rich. As noted by Pruski (2000. Brittonia 52: 118–120), the name *A. oppositifolia* actually refers to a species of *Heliopsis*.
464	For *Coreopsis palmata*, the plate citation should read *Pl. 275 f, g* instead of *Pl. 275 e, f*.
465	Pl. 275. In the legend, the labels for parts *e* and *g* are reversed (the habit of *Coreopsis tinctoria* should be *e* and that for *C. palmata* should be *g*).
466	For *Coreopsis tinctoria*, the plate citation should read *Pl. 275 e* instead of *Pl. 275 g*.
481	Pl. 278. In the legend, the entry for *Eclipta alba* should read *Eclipta prostrata*.
490	In couplet 3 of the key to *Helenium* species, the species names are reversed. The first lead actually refers to *H. virginicum* (which has basally disposed leaves) and the second lead instead refers to *H. autumnale* (which has well-developed stem leaves).
703	In the key to *Lepidium*, couplet 9 should be altered to delete the first two characters (fruit shape and fruit stalk pubescence) and to replace the name *L. ruderale* with *L. oblongum* (see p. 707 correction below for more information).
707	After Volume 2 had already gone to Press, Brassicaceae co-author Ihsan Al-Shehbaz redetermined the only Missouri record of *Lepidium ruderale* as *L. oblongum* Small. This weedy species is native from the neotropics north through the southwestern United States as far northeast as Arkansas and Kansas (it is still introduced in Missouri). *Lepidium ruderale*, in contrast, is native to the Old World. *Lepidium oblongum*

Page Number	Correction(s)
707 (cont.)	differs from the morphologically similar *L. ruderale* in having even the upper leaves moderately to deeply divided (vs. entire or toothed), the sepals more or less persistent at fruiting (vs.shed early), and in its tendency toward broadly obovate to circular (vs. mostly elliptic) fruits.
715	In the discussion of *Planodes virginica*, Mark Beilstein's academic affiliation is erroneously listed as Washington University instead of University of Missouri–St. Louis.
743	For *Campanula americana*, the plate citation should read *Pl. 330 j–l* instead of *Pl. 330 f–h.*
744	For *Campanula rapunculoides* var. *rapunculoides*, the plate citation should read *Pl. 330 h, i* instead of *Pl. 330 d, e.*
745	Pl. 330. The legend contains several errors and omissions. The corrected legend should read: Plate 330. Campanulaceae. *Campanula rotundifolia*, a) flower, b) inflorescence. *Campanula aparinoides*, c) inflorescence. *Campanula rapunculoides*, h) inflorescence, i) leaf. *Campanula americana*, j) leaf, k) fruit, l) inflorescence. Parts *d* and *e* illustrate the fruit and habit of *Callitriche terrestris* and parts *f* and *g* illustrate the fruit and habit of *C. terrestris*, The genus *Callitriche* has been reclassified and will be treated in Volume 3 in the family Plantaginaceae.
936	Pl. 363. In the legend, *Calystegia spithameus* should read *Calystegia spithamea.*
1043	Pl. 382. In the legend, part *e* should refer to *Euphorbia serpyllifolia* and only parts *d, f* should refer to *E. prostrata.*
1047	For *Euphorbia prostrata*, the plate citation should read *Pl. 382 d, f.*
1048	For *Euphorbia serpyllifolia*, the plate citation should read *Pl. 381 c, d; 382 e*, rather than just *Pl. 381 c, d.*
1067	Pl. 386. In the legend, parts *c, d, e* should refer to *Senna obtusifolia* and *f* should refer to *S. occidentalis.*
1073	For *Senna obtusifolia*, the plate citation should read *Pl. 386 c–e* instead of *Pl. 386 f.*
1073	For *Senna occidentalis*, the plate citation should read *Pl. 386 f* instead of *Pl. 386 c–e.*
1142	Index. The entry for *Aster oolantangiensis* should be spelled *Aster oolentangiensis.*
1181	The index entry forthe species and varieties of *Xanthium* should appear under the *X* section rather than the *W* section.

TAXONOMIC AND NOMENCLATURAL DIFFERENCES BETWEEN STEYERMARK'S FLORA OF MISSOURI AND THE REVISED FLORA OF MISSOURI, VOLUME 2

Rex Hill and George Yatskievych
Flora of Missouri Project

With the publication of the revised edition of *Steyermark's Flora of Missouri, Volume 2* (Yatskievych, 2006a), there are, as was the case with Volume 1 (Yatskievych, 1999), numerous changes to botanical nomenclature from the original *Flora of Missouri* (Steyermark, 1963). Many of these changes were documented in the *Catalogue of the Flora of Missouri* (Yatskievych and Turner, 1990), but there have been a number of changes since that publication and it seems appropriate to document all changes appearing in Volume 2 since Steyermark's original work. Table 1 documents those changes and hopefully will provide a convenient crosswalk to relate species in Steyermark's original book to those in the revised edition. We have attempted to follow the same style as the paper covering changes in Volume I (Wood and Yatskievych, 2000), using the same set of ten criteria for grouping changes:

Category	Reason for change	Count
1	Excluded from the Flora	19
2	Replacement Name	136
3	Change of Application	11
4	Taxonomic lumping of genera	8
5	Taxonomic splitting of genera	71
6	Taxonomic lumping of species	7
7	Taxonomic splitting of species	3
8	Taxonomic lumping of infraspecific taxa	109
9	Taxonomic splitting of infraspecific taxa	18
10	Change of infraspecific taxon status	18

Included in Table 1 under Category 1 are 19 taxa treated in the original Flora but excluded from the revised volume. In each case, the original materials were misdetermined. Additionally, one

species exists that was added as new to the state during compilation of the Catalogue (Yatskievych and Turner, 1999), but that has since been excluded from Volume 2 (*Thelesperma ambiguum*).

An additional list (Table 2), documents 149 species and infraspecific taxa new to the revised Flora of Missouri. As with Volume 1, treatments in Volume 2 are organized by family name, and Volume 2 covers those Missouri dicots with family names Acanthaceae through Fabaceae, excluding those in the subfamily Faboideae of Fabaceae. The present paper covers only those dicots treated in Volume 2. A similar list will need to be prepared for the remaining species treated in Volume 3, when it is completed.

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Table 1. Nomenclatural and taxonomic changes between Steyermark's (1963) *Flora of Missouri* and the second volume of the revised *Steyermark's Flora of Missouri*. For explanation of the numerical categories of kinds of changes, see the list in the text above.

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Acacia angustissima var. hirta	Acaciella angustissima	1078	2, 8
Acalypha gracilens var. fraseri	Acalypha gracilens	1013	8
Acalypha gracilens var. monococca	Acalypha monococca	1014	2
Acer negundo var. interius	Acer negundo var. texanum	10	8
Acer negundo var. violaceum	Acer negundo var. negundo	10	8
Acer nigrum	Acer saccharum ssp. nigrum	15	6
Acer rubrum var. trilobum	Acer rubrum var. rubrum	13	8
Acer saccharum var. floridanum	Acer saccharum ssp. floridanum	15	10
Achillea millefolium var. lanulosa	Achillea millefolium	173	8
Agoseris cuspidata	Nothocalais cuspidata	374	2
Amaranthus albus var. pubescens	Amaranthus albus	23	8
Amaranthus graecizans	Amaranthus blitoides	24	3
Amaranthus tamariscinus	Amaranthus tuberculatus	32	2
Amaranthus torreyi	Amaranthus arenicola	23	3
Ambrosia artemisiifolia var. elatior	Ambrosia artemisiifolia	444	2
Ambrosia coronopifolia	Ambrosia psilostachya	446	2
Ambrosia trifida var. texana	Ambrosia trifida	448	8
Amsinckia micrantha	Amsinckia menziesii	625	2, 6
Amsinckia retrorsa	Amsinckia menziesii		
Amsonia tabernaemontana var. gattingeri	Amsonia tabernaemontana var. salicifolia	118	8
Antennaria neglecta var. campestris	Antennaria neglecta	428	8
Antennaria plantaginifolia var. ambigens	Antennaria parlinii ssp. fallax	429	2, 10
Antennaria plantaginifolia var. arnoglossa	Antennaria parlinii ssp. parlinii	429	
Antennaria plantaginifolia var. plantaginifolia	Excluded	---	1
Anthemis arvensis var. agrestis	Anthemis arvensis	177	8
Anthemis tinctoria	Cota tinctoria ssp. tinctoria	188	5
Anthriscus scandicina	Anthriscus caucalis	66	2

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Apocynum cannabinum var. pubescens	Apocynum cannabinum	122	8
Apocynum medium	Apocynum ×floribundum	121	2
Apocynum sibericum var. cordigerum	Apocynum cannabinum		6, 8
Apocynum sibericum var. sibericum	Apocynum cannabinum		
Arabis canadensis	Boechera canadensis	668	5
Arabis laevigata var. laevigata	Boechera laevigata	668	5
Arabis lyrata var. lyrata	Arabidopsis lyrata var. lyrata	660	5
Arabis missouriensis var. deamii	Boechera missouriensis	669	8
Arabis missouriensis var. missouriensis	Boechera missouriensis		
Arabis shortii var. phalacrocarpa	Boechera shortii	669	8
Arabis shortii var. shortii	Boechera shortii		
Arctium tomentosum	Excluded	---	1
Arenaria lateriflora	Moehringia lateriflora	819	5
Arenaria patula var. patula	Minuartia patula	818	5, 8
Arenaria patula var. robusta	Minuartia muscorum	818	2
Arenaria stricta	Minuartia michauxii	817	2
Aristolochia serpentaria var. hastata	Aristolochia serpentaria	138	8
Armoracia aquatica	Rorippa aquatica	719	5
Artemisia caudata var. caudata	Artemisia campestris ssp. caudata	182	2, 10
Artemisia glauca var. drancunculata	Artemisia dracunculus	184	2, 8
Artemisia glauca var. glauca	Artemisia dracunculus		
Artemisia ludoviciana var. gnaphalodes	Artemisia ludoviciana var. ludoviciana	186	8
Artemisia vulgaris var. glabra	Artemisia vulgaris	187	8
Artemisia vulgaris var. latiloba	Artemisia vulgaris		
Asclepias incarnata var. incarnata	Asclepias incarnata ssp. incarnata	146	10
Asclepias syriaca var. kansana	Asclepias syriaca	153	8
Asclepias tuberosa	Asclepias tuberosa ssp. interior	154	9

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Asclepias viridiflora var. lanceolata	Asclepias viridiflora	157	8
Asclepias viridiflora var. linearis	Asclepias viridiflora		
Ascyrum hypericoides var. hypericoides	Hypericum hypericoides ssp. hypericoides	920	4, 10
Ascyrum hypericoides var. multicaule	Hypericum hypericoides ssp. multicaule	920	
Aster anomalus	Symphyotrichum anomalum	282	5
Aster azureus var. azureus	Symphyotrichum oolentangiense var. oolantangiense	302	5, 2
Aster azureus var. poaceus	Symphyotrichum oolentangiense var. poaceum	302	
Aster brachyactis	Symphyotrichum ciliatum	284	5, 2
Aster commutatus	Symphyotrichum falcatum ssp. commutatum		5, 2
Aster cordifolius var. cordifolius	Symphyotrichum cordifolium	285	5, 8
Aster cordifolius var. moratus	Symphyotrichum cordifolium		
Aster cordifolius var. polycephalus	Symphyotrichum cordifolium		
Aster drummondii	Symphyotrichum drummondii ssp. drummondii	286	5
Aster dumosus var. dodgei	Symphyotrichum dumosum var. strictior	287	5, 8
Aster dumosus var. strictior	Symphyotrichum dumosum var. strictior		
Aster ericoides	Symphyotrichum ericoides var. ericoides	290	5, 9
Aster exilis	Symphyotrichum subulatum var. ligulatum	311	5, 2
Aster furcatus	Eurybia furcata	226	5
Aster laevis	Symphyotrichum laeve	291	5
Aster lateriflorus	Symphyotrichum lateriflorum	295	5
Aster linariifolius var. linariifolius	Ionactis linariifolius	243	5
Aster novae-angliae	Symphyotrichum novae-angliae	296	5
Aster oblongifolius var. angustatus	Symphyotrichum oblongifolium	297	5, 8
Aster oblongifolius var. oblongifolius	Symphyotrichum oblongifolium		
Aster ontarionis	Symphyotrichum ontarionis	298	5

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Aster paludosus var. hemisphericus	Eurybia hemispherica	227	5, 2
Aster parviceps	Symphyotrichum parviceps	302	5
Aster patens var. patens	Symphyotrichum patens var. patens	304	5
Aster patens var. patentissimus	Symphyotrichum patens var. patentissimum	304	
Aster pilosus var. demotus	Symphyotrichum pilosum	305	5, 8
Aster pilosus var. pilosus	Symphyotrichum pilosum		
Aster pilosus var. platyphyllus	Symphyotrichum pilosum		
Aster praealtus var. angustior	Symphyotrichum praealtum	306	5, 8
Aster praealtus var. praelatus	Symphyotrichum praealtum		
Aster praealtus var. subasper	Symphyotrichum praealtum		
Aster ptarmicoides	Solidago ptarmicoides	269	4
Aster puniceus var. firmus	Symphyotrichum puniceum	308	5, 2
Aster sagittifolius	Symphyotrichum urophyllum	314	5, 2
Aster sericeus	Symphyotrichum sericeum	311	5
Aster simplex var. interior	Symphyotrichum lanceolatum var. interior	295	5, 2
Aster simplex var. ramossissimus	Symphyotrichum lanceolatum var. lanceolatum	295	5, 2
Aster simplex var. simplex	Excluded	---	1
Aster turbinellus	Symphyotrichum turbinellum	312	5
Aster vimineus var. subdumosus	Symphyotrichum racemosum var. subdumosum	310	5, 2
Aster vimineus var. vimineus	Excluded	---	1
Aster ×amethystinus	Symphyotrichum ×amethystinum	290	5
Astranthium integrifolium	Astranthium ciliatum	205	2
Atriplex argentea	Atriplex argentea var. argentea	863	
Atriplex patula var. hastata	Atriplex prostrata	865	2
Barbarea vulgaris var. arcuata	Barbarea vulgaris	667	8
Bidens aristosa var. fritcheyi	Bidens aristosa	452	8
Bidens aristosa var. mutica	Bidens aristosa		
Bidens cernua var. elliptica	Bidens cernua	456	8
Bidens cernua var. integra	Bidens cernua		

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Bidens comosa	Bidens tripartita	459	2, 6
Bidens connata var. petiolata	Bidens tripartita		
Bidens polylepis var. polylepis	Bidens aristosa	452	2, 6
Bidens polylepis var. retrorsa	Bidens aristosa		
Boltonia asteroides var. decurrens	Boltonia decurrens	208	2
Boltonia asteroides var. microcephala	Boltonia asteroides var. recognita	208	8
Boltonia diffusa var. interior	Boltonia diffusa	209	8
Brassica hirta	Sinapis alba ssp. alba	724	2
Brassica juncea var. crispifolia	Brassica juncea	672	8
Brassica kaber var. pinnatifida	Sinapis arvensis	725	2
Brassica napus var. napobrassica	Brassica napus	672	8
Cacalia atriplicifolia	Arnoglossum atriplicifolium	577	5
Cacalia muhlenbergii	Arnoglossum reniforme	578	2
Cacalia suaveolens	Hasteola suaveolens	582	2
Cacalia tuberosa	Arnoglossum plantagineum	578	2
Cardaria draba	Lepidium draba	706	4
Cardaria pubescens var. elongata	Lepidium appelianum	703	2
Cassia fasciculata var. depressa	Chamaecrista fasciculata	1064	5, 8
Cassia fasciculata var. fasciculata	Chamaecrista fasciculata		
Cassia fasciculata var. robusta	Chamaecrista fasciculata		
Cassia marilandica	Senna marilandica	1072	5
Cassia nictitans var. nictitans	Chamaecrista nictitans var. nictitans	1065	2
Cassia occidentalis	Senna occidentalis	1074	2
Cassia tora	Senna obtusifolia	1073	2
Cayaponia grandifolia	Cayaponia quinqueloba	976	2
Centaurea maculosa	Excluded	---	1
Centaurea vochinensis	Centaurea nigrescens	328	2
Cerastium arvense var. villosum	Cerastium velutinum ssp. velutinum	809	2
Cerastium tetrandrum	Cerastium diffusum	804	2

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Cerastium viscosum	Cerastium glomeratum	806	2
Cerastium vulgatum	Cerastium fontanum ssp. vulgare	806	2, 9
Chaerophyllum procumbens var. shortii	Chaerophyllum procumbens	70	8
Chaerophyllum tainturieri var. dasycarpum	Chaerophyllum tainturieri	70	8
Chaerophyllum tainturieri var. floridanum	Chaerophyllum tainturieri		
Chaerophyllum texanum	Chaerophyllum tainturieri		6
Chenopodium album var. lanceolatum	Chenopodium album	874	8
Chenopodium desiccatum var. desiccatum	Chenopodium desiccatum	880	
Chenopodium desiccatum var. leptophylloides	Chenopodium pratericola	887	2
Chenopodium gigantospermum	Chenopodium simplex	889	2
Chrysanthemum balsamita var. tanacetoides	Tanacetum balsamita	195	5, 8
Chrysanthemum leucanthemum var. leucanthemum	Leucanthemum vulgare	190	5, 8
Chrysanthemum leucanthemum var. pinnatifidum	Leucanthemum vulgare		
Chrysanthemum parthenium	Tanacetum parthenium	195	5
Chrysopsis pilosa	Bradburia pilosa	210	5
Chrysopsis villosa var. camporum	Heterotheca camporum var. camporum	240	2, 5
Chrysopsis vilosa var. angustifolia	Excluded	---	1
Chrysopsis vilosa var. canescens	Heterotheca canescens	240	5, 2
Cirsium undulatum var. megacephalum	Cirsium undulatum	340	2
Citrullus vulgaris var. vulgaris	Citrullus lanatus var. lanatus	978	2
Cleome houtteana	Cleome hassleriana	910	3
Coldenia nuttallii	Tiquilia nuttallii	993	2
Convolvulus pellitus	Calystegia pubescens	933	2, 5
Convolvulus sepium var. fraterniflorus	Calystegia silvatica ssp. fraterniflora	935	2
Convolvulus sepium var. repens	Calystegia sepium	934	8
Convolvulus spithamaeus var. spithamaeus	Calystegia spithamaea ssp. spithamaea	935	5

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Coreopsis grandiflora var. harveyana	Coreopsis grandiflora	463	8
Coreopsis lanceolata var. villosa	Coreopsis lanceolata	463	8
Coreopsis tripteris var. deamii	Coreopsis tripteris	468	8
Corispermum hyssopifolium	Corispermum pallasii	894	2
Corispermum nitidum	Corispermum americanum	894	2
Corispermum orientale var. emarginatum	Corispermum villosum	894	2
Cornus obliqua	Cornus amomum ssp. obliqua	959	2, 9
Cornus racemosa	Cornus foemina ssp. racemosa	964	2, 9
Coronopus didymus	Lepidium didymum	704	4
Corylus americana var. indehiscens	Corylus americana	612	8
Crotonopsis elliptica	Croton willdenowii	1026	2
Crotonopsis linearis	Croton michauxii	1024	2
Cucumis melo var. melo	Cucumis melo ssp. melo	979	10
Cucurbita pepo var. ovifera	Cucurbita pepo var. ozarkana	983	3
Cuscuta indecora var. neuropatala	Cuscuta indecora	943	8
Cynosciadium pinnatum	Limnosciadium pinnatum	89	5
Dentaria laciniata	Cardamine concatenata	680	4
Descurainia pinnata var. brachycarpa	Descurainia pinnata ssp. brachycarpa	688	10
Descurainia pinnata var. pinnata	Descurainia pinnata ssp. pinnata	688	
Dianthus prolifer	Petrorhagia prolifera	822	5
Diospyros virginiana var. platycarpa	Diospyros virginiana	990	8
Diospyros virginiana var. pubescens	Diospyros virginiana		
Dipsacus sylvestris	Dipsacus fullonum	989	2
Draba reptans var. micrantha	Draba reptans	691	8
Draba verna var. boerhaavii	Draba verna	691	8
Dracopis amplexicaulis	Rudbeckia amplexicaulis	537	4
Eclipta alba	Eclipta prostrata	479	2
Engelmannia pinnatifida	Engelmannia peristenia	480	2
Erechtites hieracifolia var. hieracifolia	Erechtites hieracifolius var. hieracifolius	580	2

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Erigeron canadensis	Conyza canadensis var. canadensis	214	5
Erigeron divaricatus	Conyza ramosissima	216	5, 2
Erigeron pusillus	Conyza canadensis var. pusilla	216	5, 2
Erigeron strigosus var. beyrichii	Erigeron strigosus var. strigosus	223	8
Eruca sativa	Eruca vesicaria ssp. sativa	692	2, 9
Euonymus fortunei	Euonymus hederaceus	856	7
Eupatorium coelestinum	Conoclinium coelestinum	400	5
Eupatorium cuneifolium var. semiserratum	Eupatorium semiserratum	408	2
Eupatorium incarnatum	Fleischmannia incarnata	412	5
Eupatorium perfoliatum var. cuneatum	Eupatorium ×truncatum	407	2
Eupatorium purpureum	Eupatorium purpureum var. holzingeri	407	9
Eupatorium rugosum var. rugosum	Ageratina altissima var. altissima	395	5, 2, 8
Eupatorium rugosum var. tomentellum	Ageratina altissima var. altissima	395	
Eupatorium sessilifolium var. brittonianum	Eupatorium sessilifolium	410	8
Euphorbia corollata var. mollis	Euphorbia corollata	1034	8
Euphorbia corollata var. paniculata	Euphorbia corollata		
Euphorbia heterophylla var. graminifolia	Euphorbia cyathophora	1034	2, 8
Euphorbia heterophylla var. heterophylla	Excluded	---	1
Euphorbia supina	Euphorbia maculata	1042	3
Falcaria sioides	Falcaria vulgaris	82	2
Franseria acanthicarpa	Ambrosia acanthicarpa	443	4
Franseria discolor	Ambrosia tomentosa	446	2
Gaillardia lutea	Gaillardia aestivalis var. flavovirens	483	2, 9
Galinsoga ciliata	Galinsoga quadriradiata	486	2
Gnaphalium obtusifolium var. micradenium	Pseudognaphalium micradenium	434	5, 2
Gnaphalium obtusifolium var. obtusifolium	Pseudognaphalium obtusifolium	434	
Gnaphalium purpureum	Gamochaeta purpurea	432	5

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Grindelia squarrosa var. serrulata	Grindelia squarrosa var. squarrosa	237	8
Gutierrezia dracunculoides	Amphiachyris dracunculoides	202	5
Haplopappus ciliatus	Grindelia ciliata	233	4
Helenium autumnale var. canaliculatum	Helenium autumnale	490	8
Helenium autumnale var. parviflorum	Helenium autumnale		
Helianthus annuus var. lenticularis	Helianthus annuus	497	8
Helianthus annuus var. nanus	Helianthus annuus		
Helianthus hirsutus var. stenophyllus	Helianthus hirsutus	503	8
Helianthus hirsutus var. trachyphyllus	Helianthus hirsutus		
Helianthus laetiflorus var. laetiflorus	Excluded	---	1
Helianthus laetiflorus var. rigidus	Helianthus pauciflorus ssp. pauciflorus	511	2
Helianthus occidentalis var. occidentalis	Helianthus occidentalis ssp. occidentalis	508	10
Helianthus tuberosus var. subcanescens	Helianthus tuberosus	515	8
Heliopsis helianthoides var. occidentalis	Heliopsis helianthoides var. scabra	517	2
Heracleum maximum	Heracleum sphondylium ssp. montanum	85	2, 9
Heterotheca latifolia	Heterotheca subaxillaris	242	2
Hieracium scabrum var. intonsum	Hieracium scabrum	357	8
Hoffmanseggia jamesii	Pomaria jamesii	1070	2
Humulus lupulus	Humulus lupulus var. neomexicanus	764	9
Humulus lupulus	Humulus lupulus var. pubescens	764	
Hypericum canadense var. canadense	Excluded	---	1
Hypericum densiflorum var. densiflorum	Excluded	---	1
Hypericum densiflorum var. lobocarpum	Hypericum lobocarpum	920	2, 8
Hypericum mutilum var. mutilum	Hypericum mutilum ssp. mutilum	922	8, 10

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Hypericum mutilum var. parviflorum	Hypericum mutilum ssp. mutilum		
Hypericum punctatum var. pseudomaculatum	Hypericum pseudomaculatum	925	2, 8
Hypericum punctatum var. punctatum	Hypericum punctatum	926	8
Hypericum pyramidatum	Hypericum ascyron ssp. pyramidatum	915	2, 9
Hypericum spathulatum	Hypericum prolificum	925	2
Hypericum sphaerocarpum var. turgidum	Hypericum sphaerocarpum	928	8
Hypericum tubulosum	Triadenum tubulosum	929	5
Hypericum walteri	Triadenum walteri	930	5
Ipomoea hederacea var. integriuscula	Ipomoea hederacea	950	8
Iva ciliata var. ciliata	Iva annua	520	2, 8
Iva ciliata var. macrocarpa	Iva annua		
Iva xanthifolia	Cyclachaena xanthiifolia	471	5
Justicia ovata	Justicia ovata var. lanceolata	5	9
Kochia scoparia var. culta	Kochia scoparia	896	8
Kochia scoparia var. pubescens	Kochia scoparia		
Kuhnia eupatorioides var. angustifolia	Brickellia eupatorioides var. texana	398	2
Kuhnia eupatorioides var. corymbulosa	Brickellia eupatorioides var. corymbulosa	397	
Kuhnia eupatorioides var. eupatoriodes	Brickellia eupatorioides var. eupatorioides	398	
Lactuca canadensis var. latifolia	Lactuca canadensis	364	8
Lactuca canadensis var. longifolia	Lactuca canadensis		
Lactuca canadensis var. obovata	Lactuca canadensis		
Lactuca floridana var. villosa	Lactuca floridana	365	8
Lactuca hirsuta var. sanguinea	Lactuca hirsuta	365	8
Lactuca pulchella	Lactuca tatarica ssp. pulchella	370	2
Lactuca scariola	Lactuca serriola	368	2
Lappula echinata	Lappula squarrosa	636	2
Lappula redowskii var. occidentalis	Lappula redowskii	636	8

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Lechea villosa	Lechea mucronata	906	2
Lesquerella filiformis	Physaria filiformis	714	2
Lesquerella gracilis var. gracilis	Physaria gracilis ssp. gracilis	714	2
Levisticum paludapifolium	Levisticum officinale	88	2
Liatris ligulistylis	Excluded	---	1
Liatris punctata var. nebraskana	Liatris punctata var. punctata	416	2
Liatris scabra	Liatris squarrulosa	423	2
Lithospermum arvense	Buglossoides arvense	628	5
Lobelia puberula var. mineolana	Lobelia puberula	748	8
Lobelia siphilitica var. ludoviciana	Lobelia siphilitica	750	8
Lobelia spicata var. campanulata	Lobelia spicata var. spicata	752	8
Lobelia spicata var. hirtella	Lobelia spicata var. spicata		
Lobelia ×siphilitica var. hybrida	Lobelia ×speciosa	751	3
Lomatium foeniculaceum	Lomatium foeniculaceum ssp. daucifolium	92	9
Lomatium foeniculaceum	Lomatium foeniculaceum ssp. foeniculaceum	92	9
Lonicera dioica var. glaucescens	Lonicera dioica	770	8
Lonicera flava var. flavescens	Lonicera flava	770	8
Lonicera morrowi	Lonicera ×bella	767	2
Lonicera prolifera	Lonicera reticulata	774	2
Lychnis alba	Silene latifolia	837	2
Lychnis dioica	Silene dioica	836	2
Matelea gonocarpa	Gonolobus suberosus	160	2, 5
Matelea obliqua	Excluded	---	1
Matricaria maritima var. agrestis	Excluded	---	1
Matricaria matricarioides	Matricaria discoidea	192	3
Myosotis virginica var. macrosperma	Myosotis macrosperma	643	2, 8
Myosotis virginica var. virginica	Myosotis verna	646	2, 8
Nasturtium officinale var. siifolium	Nasturtium officinale	711	8
Nyssa sylvatica var. caroliniana	Nyssa sylvatica	966	8

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Nyssa sylvatica var. sylvatica	Excluded	---	1
Onosmodium hispidissimum	Onosmodium molle ssp. hispidissimum	648	2, 9
Onosmodium occidentale	Onosmodium molle ssp. occidentale	648	
Onosmodium subsetosum	Onosmodium molle ssp. subsetosum	648	
Opuntia compressa	Opuntia humifusa	738	2
Osmorhiza longistylis var. brachycoma	Osmorhiza longistylis	94	8
Osmorhiza longistylis var. villicaulis	Osmorhiza longistylis		
Ostrya virginiana var. lasia	Ostrya virginiana	613	8
Oxypolis rigidior var. ambigua	Oxypolis rigidior	94	8
Paronychia fastigiata var. paleacea	Paronychia fastigiata var. fastigiata	821	2
Parthenium hispidum	Parthenium integrifolium var. hispidum	528	2, 9
Picris sprengeriana	Picris rhagadioloides	376	2
Polanisia dodecandra var. dodecandra	Polanisia dodecandra ssp. dodecandra	912	10
Polanisia dodecandra var. trachysperma	Polanisia dodecandra ssp. trachysperma	912	
Polymnia uvedalia var. densipilis	Smallanthus uvedalius	555	2, 8
Polymnia uvedalia var. floridana	Smallanthus uvedalius		
Prenanthes altissima var. cinnamomea	Prenanthes altissima	378	8
Rhododendron roseum	Rhododendron prinophyllum	1004	2
Rhus aromatica var. illinoensis	Rhus aromatica var. aromatica	44	8
Rhus copallina var. latifolia	Rhus copallinum	45	2, 8
Rhus radicans var. radicans	Toxicodendron radicans ssp. radicans	51	5, 10
Rhus radicans var. vulgaris	Toxicodendron radicans ssp. negundo	50	
Rhus toxicodendron	Toxicodendron pubescens	49	2, 5
Rorippa islandica var. fernaldiana	Rorippa palustris var. fernaldiana	720	3
Rorippa islandica var. hispida	Excluded	---	1
Rorippa islandica var. islandica	Excluded	---	1

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Rorippa obtusa	Excluded	---	1
Rudbeckia fulgida var. speciosa	Rudbeckia fulgida var. sullivantii	540	2
Rudbeckia hirta	Rudbeckia hirta var. pulcherrima	542	9
Ruellia humilis var. expansa	Ruellia humilis	6	8
Ruellia humilis var. frondosa	Ruellia humilis		
Ruellia humilis var. longiflora	Ruellia humilis		
Salsola kali var. kali	Salsola tragus	900	2, 8
Salsola kali var. tenuifolia	Salsola tragus		
Sambucus canadensis var. submollis	Sambucus canadensis	776	8
Sanicula canadensis var. grandis	Sanicula canadensis	100	8
Sanicula gregaria	Sanicula odorata	102	2
Saponaria vaccaria	Vaccaria hispanica	849	5
Schrankia uncinata	Mimosa quadrivalvis var. nuttallii	1082	2, 9
Sedum telephium	Sedum erythrostictum	970	7
Sedum telephium	Sedum purpureum	972	7
Senecio aureus var. aureus	Packera aurea	584	5, 8
Senecio aureus var. gracilis	Packera aurea		
Senecio aureus var. intercursus	Packera aurea		
Senecio aureus var. semicordatus	Packera pseudaurea var. semicordata	588	2
Senecio glabellus	Packera glabella	586	2
Senecio obovatus	Packera obovata	586	2
Senecio pauperculus var. balsamitae	Packera paupercula	587	8
Senecio plattensis	Packera plattensis	588	2
Serinia oppositifolia	Krigia cespitosa ssp. cespitosa	360	3
Sibara virginica	Planodes virginica	715	2
Silene cucubalus	Silene vulgaris ssp. vulgaris	841	2
Sisymbrium officinale var. leiocarpum	Sisymbrium officinale	726	8
Solidago arguta var. bootii	Solidago arguta var. caroliniana	254	3
Solidago arguta var. neurolepis	Solidago ×neurolepis	253	2

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Solidago arguta var. strigosa	Solidago arguta var. bootii	253	3
Solidago canadensis var. gilvocanescens	Solidago altissima var. gilvocanescens	252	2
Solidago gigantea var. leiophylla	Solidago gigantea	261	8
Solidago graminifolia var. media	Euthamnia graminifolia	230	5, 8
Solidago graminifolia var. nuttallii	Euthamnia graminifolia		
Solidago gymnospermoides	Euthamnia gymnospermoides	230	5
Solidago leptocephala	Euthamnia leptocephala	232	5
Solidago missouriensis var. missouriensis	Solidago missouriensis var. fasciculata	263	8
Solidago nemoralis var. decemflora	Solidago nemoralis ssp. decemflora	266	10
Solidago nemoralis var. nemoralis	Solidago nemoralis ssp. nemoralis	266	
Solidago petiolaris var. wardii	Solidago petiolaris	268	8
Solidago radula var. laeta	Solidago radula	270	8
Solidago radula var. stenolepis	Solidago radula		
Solidago rigida var. rigida	Solidago rigida ssp. rigida	274	10
Solidago rugosa var. aspera	Solidago rugosa ssp. aspera	275	10
Solidago rugosa var. celtidifolia	Solidago rugosa ssp. aspera		8
Solidago rugosa var. rugosa	Solidago rugosa ssp. rugosa	275	
Solidago speciosa var. angustata	Solidago speciosa var. speciosa	276	8
Sonchus arvensis var. arvensis	Sonchus arvensis ssp. arvensis	384	10
Sonchus arvensis var. glabrescens	Sonchus arvensis ssp. uliginosus	384	2
Specularia biflora	Triodanis biflora	754	2
Specularia holzingeri	Triodanis holzingeri	754	2
Specularia lamprosperma	Triodanis lamprosperma	756	2
Specularia leptocarpa	Triodanis leptocarpa	756	2
Specularia perfoliata	Triodanis perfoliata	757	2
Spilanthes americana var. repens	Acmella oppositifolia var. repens	441	2
Stellaria pubera var. pubera	Excluded	---	1
Suaeda depressa	Suaeda calceoliformis	902	2
Thelesperma trifidum	Thelesperma filifolium	559	2

Name in Steyermark (1963)	Name in Yatskievych (2006a)	Page in Y. (2006a)	Category (ies)
Thlaspi perfoliatum	Microthlaspi perfoliatum	710	5
Tragia urticifolia var. urticifolia	Excluded	---	1
Triosteum angustifolium var. eamesii	Triosteum angustifolium	781	8
Vaccinium arboreum var. glaucescens	Vaccinium arboreum	1007	8
Vaccinium stamineum var. interius	Vaccinium stamineum	1009	8
Vaccinium stamineum var. melanocarpum	Vaccinium stamineum		
Vaccinium stamineum var. neglectum	Vaccinium stamineum		
Vaccinium vacillans var. crinitum	Vaccinium pallidum	1008	2, 8
Vaccinium vacillans var. missouriense	Vaccinium pallidum		
Vaccinium vacillans var. vacillans	Vaccinium pallidum		
Verbesina encelioides var. exauriculata	Verbesina encelioides	562	8
Vernonia altissima var. altissima	Vernonia gigantea ssp. gigantea	598	2, 10
Vernonia altissima var. taeniotricha	Vernonia gigantea ssp. gigantea		
Vernonia baldwinii var. baldwini	Vernonia baldwinii ssp. baldwinii	596	10
Vernonia baldwinii var. interior	Vernonia baldwinii ssp. interior	597	
Vernonia crinita	Vernonia arkansana	594	2
Vernonia fasciculata var. fasciculata	Vernonia fasciculata ssp. fasciculata	597	10
Viburnum dentatum var. deamii	Viburnum dentatum	786	8
Viburnum rafinesquianum var. affine	Viburnum rafinesquianum	792	8
Xanthium chinense	Xanthium strumarium	569	6
Xanthium inflexum	Xanthium strumarium		
Xanthium italicum	Xanthium strumarium		
Xanthium pensylvanicum	Xanthium strumarium		
Xanthium speciosum	Xanthium strumarium		
Xanthium varians	Xanthium strumarium		
Xanthium wootoni	Xanthium strumarium		

Table 2. Additions to the flora of Missouri since Steyermark's (1963) *Flora of Missouri*, as recorded in the second volume of the revised *Steyermark's Flora of Missouri* (Yatskievych, 2006a).

Family	Name in Yatskievych (2006a)	Page in Y. (2006a)
Aceraceae	Acer ginnala	9
Aceraceae	Acer saccharum ssp. schneckii	16
Amaranthaceae	Amaranthus blitum ssp. emarginatus	24
Amaranthaceae	Amaranthus cruentus	26
Amaranthaceae	Amaranthus hypochondriacus	28
Amaranthaceae	Amaranthus tricolor	31
Amaranthaceae	Amaranthus viridis	34
Amaranthaceae	Celosia argentea var. argentea	35
Apiaceae	Ammoselinum butleri	63
Apiaceae	Berula erecta var. incisum	67
Apiaceae	Cicuta maculata var. bolanderi	74
Apiaceae	Eryngium leavenworthii	80
Apiaceae	Hydrocotyle ranunculoides	86
Apiaceae	Oenanthe javanica	92
Apiaceae	Torilis arvensis	111
Apocynaceae	Vinca major	126
Aquifoliaceae	Ilex vomitoria var. vomitoria	130
Asclepiadaceae	Asclepias speciosa	150
Asclepiadaceae	Asclepias subverticillata	152
Asclepiadaceae	Cynanchum louiseae	159
Asteraceae/Anthemideae	Achillea ptarmica	174
Asteraceae/Anthemideae	Artemisia absinthium	179
Asteraceae/Anthemideae	Artemisia stelleriana	187
Asteraceae/Anthemideae	Tripleurospermum inodorum	196
Asteraceae/Astereae	Aphanostephus skirrhobasis var. skirrhobasis	203
Asteraceae/Astereae	Aster tataricus	204
Asteraceae/Astereae	Doellingeria umbellata var. pubens	218
Asteraceae/Astereae	Eurybia macrophylla	227
Asteraceae/Astereae	Grindelia squarrosa var. quasiperennis	237
Asteraceae/Astereae	Gutierrezia texana	237
Asteraceae/Astereae	Heterotheca camporum var. glandulissimum	240
Asteraceae/Astereae	Solidago canadensis var. hargeri	256
Asteraceae/Astereae	Solidago rigida ssp. glabrata	272
Asteraceae/Astereae	Solidago rigida ssp. humilis	272
Asteraceae/Astereae	Solidago speciosa var. rigidiuscula	276

Asteraceae/Astereae	Symphyotrichum ericoides var. prostratum	290
Asteraceae/Astereae	Symphyotrichum lanceolatum var. lanceolatum	295
Asteraceae/Astereae	Symphyotrichum patens var. gracile	304
Asteraceae/Cardueae	Centaurea diffusa	326
Asteraceae/Cardueae	Centaurea diluta	326
Asteraceae/Cardueae	Centaurea stoebe ssp. micranthos	331
Asteraceae/Cardueae	Cirsium canescens	336
Asteraceae/Cardueae	Cirsium texanum var. texanum	340
Asteraceae/Cardueae	Silybum marianum	342
Asteraceae/Cichorieae	Crepis tectorum	350
Asteraceae/Cichorieae	Helminthotheca echioides	352
Asteraceae/Cichorieae	Leontodon saxatilis var. saxatilis (as L. taraxacoides ssp. taraxacoides; see Yatskievych [2006b])	372
Asteraceae/Cichorieae	Picris hieracioides ssp. hieracioides	376
Asteraceae/Eupatorieae	Eupatorium capillifolium	402
Asteraceae/Eupatorieae	Eupatorium maculatum var. bruneri	404
Asteraceae/Eupatorieae	Eupatorium purpureum var. purpureum	407
Asteraceae/Eupatorieae	Eupatorium rotundifolium var. scabridum	407
Asteraceae/Eupatorieae	Liatris scariosa var. nieuwlandii	420
Asteraceae/Gnaphalieae	Diaperia prolifera var. prolifera	430
Asteraceae/Gnaphalieae	Gamochaeta argyrinea	431
Asteraceae/Gnaphalieae	Gamochaeta pensylvanica	432
Asteraceae/Gnaphalieae	Pseudognaphalium helleri	434
Asteraceae/Heliantheae	Bidens alba var. radiata	451
Asteraceae/Heliantheae	Bidens trichosperma	459
Asteraceae/Heliantheae	Cosmos parviflorus	470
Asteraceae/Heliantheae	Echinacea simulata	478
Asteraceae/Heliantheae	Guizotia abyssinica	488
Asteraceae/Heliantheae	Helenium virginicum	492
Asteraceae/Heliantheae	Helianthus pauciflorus ssp. subrhomboideus	511
Asteraceae/Heliantheae	Marshallia caespitosa	522
Asteraceae/Heliantheae	Melampodium cinereum var. ramosissimum	523
Asteraceae/Heliantheae	Ratibida tagetes	534
Asteraceae/Heliantheae	Silphium radula var. radula	553
Asteraceae/Heliantheae	Tagetes patula	558
Asteraceae/Senecioneae	Packera tomentosa	589
Asteraceae/Senecioneae	Senecio ampullaceus	590
Betulaceae	Alnus glutinosa	609

Boraginaceae	Anchusa azurea	626
Boraginaceae	Anchusa officinalis	627
Boraginaceae	Brunnera macrophylla	627
Boraginaceae	Myosotis stricta	644
Brassicaceae	Alliaria petiolata	658
Brassicaceae	Alyssum alyssoides	659
Brassicaceae	Alyssum desertorum	659
Brassicaceae	Aubrieta deltoidea	666
Brassicaceae	Barbarea verna	666
Brassicaceae	Cardamine diphylla	680
Brassicaceae	Cardamine flexuosa	682
Brassicaceae	Diplotaxis muralis	689
Brassicaceae	Isatis tinctoria	700
Brassicaceae	Leavenworthia torulosa	700
Brassicaceae	Lepidium chalepense	703
Brassicaceae	Lepidium latifolium	707
Brassicaceae	Lepidium oblongum (as L. ruderale; see Yatskievych [2006b])	707
Brassicaceae	Lobularia maritima	708
Brassicaceae	Lunaria annua	710
Brassicaceae	Rapistrum rugosum	718
Brassicaceae	Rorippa curvipes	720
Brassicaceae	Rorippa tenerrima	723
Brassicaceae	Thlaspi alliaceum	730
Brassicaceae	Turritis glabra	731
Buxaceae	Pachysandra procumbens	731
Cactaceae	Opuntia polyacantha var. polyacantha	740
Calycanthaceae	Calycanthus floridus var. floridus	740
Caprifoliaceae	Lonicera maackii	772
Caprifoliaceae	Symphoricarpos albus	778
Caprifoliaceae	Viburnum lantana	788
Caprifoliaceae	Viburnum opulus var. opulus	790
Caprifoliaceae	Viburnum ozarkense	791
Caryophyllaceae	Atocion armeria	800
Caryophyllaceae	Cerastium arvense ssp. strictum	803
Caryophyllaceae	Dianthus plumarius ssp. plumarius	812
Caryophyllaceae	Lychnis coronaria	816
Caryophyllaceae	Myosoton aquaticum	820
Caryophyllaceae	Paronychia virginica	822
Caryophyllaceae	Sagina procumbens	826
Caryophyllaceae	Spergularia salina	843

Caryophyllaceae	Stellaria neglecta	846
Caryophyllaceae	Stellaria pallida	848
Celastraceae	Celastrus orbiculatus	851
Celastraceae	Euonymus alatus	854
Celastraceae	Euonymus hederaceus	856
Chenopodiaceae	Atriplex micrantha	864
Chenopodiaceae	Atriplex truncata	868
Chenopodiaceae	Atriplex wrightii	868
Chenopodiaceae	Beta vulgaris ssp. vulgaris	869
Chenopodiaceae	Chenopodium ficifolium	882
Chenopodiaceae	Chenopodium opulifolium	886
Chenopodiaceae	Chenopodium watsonii	892
Chenopodiaceae	Salicornia europaea	898
Chenopodiaceae	Salsola collina	900
Cistaceae	Helianthemum canadense	904
Clusiaceae	Hypericum adpressum	915
Clusiaceae	Hypericum majus	921
Convolvulaceae	Calystegia macounii	933
Convolvulaceae	Dichondra carolinensis	944
Convolvulaceae	Ipomoea amnicola	949
Convolvulaceae	Ipomoea tricolor	954
Convolvulaceae	Jacquemontia tamnifolia	954
Convolvulaceae	Stylisma pickeringii var. pattersonii	956
Cornaceae	Nyssa biflora	966
Crassulaceae	Sedum acre ssp. acre	970
Crassulaceae	Sedum reflexum	972
Cucurbitaceae	Cucumis sativus	980
Dipsacaceae	Dipsacus laciniatus	989
Elaeagnaceae	Elaeagnus angustifolia	995
Elatinaceae	Elatine triandra var. triandra	999
Ericaceae	Vaccinium corymbosum	1008
Euphorbiaceae	Acalypha deamii	1013
Euphorbiaceae	Croton lindheimerianus var. lindheimerianus	1023
Euphorbiaceae	Euphorbia davidii	1036
Euphorbiaceae	Euphorbia nutans	1045
Euphorbiaceae	Tragia betonicifolia	1056
Euphorbiaceae	Tragia ramosa	1057
Fabaceae/Mimosoideae	Albizia julibrissin	1079
Fabaceae/Mimosoideae	Prosopis glandulosa var. glandulosa	1083

BOOK REVIEW

Kaul, Robert B., David Sutherland, and Steven Rolfsmeyer. 2006 (actually 2007). The Flora of Nebraska. School of Natural Resources, University of Nebraska–Lincoln, Lincoln, NE 68583 (http://nebraskamaps.unl.edu). vi, 966 pp. + 4 unnumbered maps and pp + 16 color plates. ISBN 976-1-56161-008-2. $60.00 + shipping and handling. Paperbound.

Nebraska is directly adjacent to only a small portion of northwestern Missouri, but its flora includes many species in common with the Glaciated Plains Natural Division of northern Missouri. This wonderful new volume combines some 95 years of combined experience with the flora of Nebraska by the three authors and represents a major milestone for a project that traces its origins back to 1964.

An introductory chapter includes overviews of the organization of the work, physical setting, original and current vegetation (including a vegetational classification system for the state), and history of floristic botany of Nebraska. This is followed by the main treatment of the flora, which is arranged by phyla (divisions), starting with the ferns and related plants, then gymnosperms, then angiosperms. Families, genera, etc. are arranged alphabetically within each of the major groups. The book concludes with an illustrated glossary, a summary of the Angiosperm Phylogeny Group's molecular-based classification system as applied to Nebraska plants, and an index. A separate index to genera is inside the back cover, and an index of families is inside the front cover, which also includes a Nebraska county locator map.

In the angiosperms, the monocots and dicots are treated in a single alphabetical sequence. The three authors split the task of writing family accounts and completed the entire book without the aid of outside contributors, for which they are to be congratulated. Dichotomous keys lead to plant identifications of families, genera, species, and infraspecific taxa. These are easy to read and well laid out. For each genus and species, there is a short description, followed by distributional and ecological information, as well as discussions on various topics. Aside from the color plates, there

are no species illustrations. There are, however, county dot maps for the species and infraspecific taxa.

The authors, who have been involved with the Flora of the Great Plains and Flora of North America Projects in addition to their work on the Flora of Nebraska, have compiled a taxonomically up-to-date, useful set of treatments. The keys seem to work very well and the discussions generally are quite useful. The flora includes some 1,900 species according to the book description at the University of Nebraska's web site, but curiously there is no summary table of numbers of native and non-native taxa included. Another organizational quirk that does not greatly diminish the utility of the work for advanced students of the flora is that although the introductory chapter includes a separate bibliography, references cited in the main text instead have the bibliographic details listed in abbreviated fashion directly in the text.

The 16 plates in a fascicle at the center of the volume are organized thematically. Topics include: native trees, general flowers, cacti, saprophytic and parasitic plants, berries, sandhills plants, species of conservation concern, woody and herbaceous invasives, landscapes of Nebraska, aquatic plants, tallgrass prairie species, and forest species. Each plate comprises six or more photographs, which are nicely composed and generally well reproduced (in some cases a bit pale). The plates not only are an informative addition to the flora, but they also should convince Missouri botanists that Nebraska has some very beautiful, interesting plants well worth a weekend road trip.

My only other quibble is that a 4-pound volume of nearly 1,000 pages should have been bound more sturdily. For those who plan to make frequent use of this oversized paperback with flimsy covers, a plastic dustcover or a trip to a bindery to have the binding changed will be essential to the longevity of the volume.

Overall, this impressive flora of our western neighbor sets a high standard and should be a very useful addition to the bookshelf of anyone interested in the flora of Nebraska, Missouri, or the Great Plains in general. For Missouri botanists, it contains information on a number of species present in eastern Nebraska that one-day may be discovered in Missouri.

George Yatskievych
Flora of Missouri Project